

## Exhibit 300: Capital Asset Summary

### Part I: Summary Information And Justification (All Capital Assets)

#### Section A: Overview & Summary Information

**Date Investment First Submitted:** 2009-06-30  
**Date of Last Change to Activities:** 2012-08-23  
**Investment Auto Submission Date:** 2012-02-24  
**Date of Last Investment Detail Update:** 2012-02-24  
**Date of Last Exhibit 300A Update:** 2012-08-23  
**Date of Last Revision:** 2012-08-23

**Agency:** 021 - Department of Transportation      **Bureau:** 12 - Federal Aviation Administration

**Investment Part Code:** 01

**Investment Category:** 00 - Agency Investments

**1. Name of this Investment:** FAAXX032: Terminal Automation Replacement System (STARS)

**2. Unique Investment Identifier (Ull):** 021-318879955

#### Section B: Investment Detail

- 1. Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

Standard Terminal Automation Replacement System (STARS) is a digital radar/flight data processing and display system used by terminal air traffic controllers to ensure the safety of military and civilian aircraft in the vicinity of major airports. STARS replaces outdated equipment in terminal radar approach control (TRACON) and air traffic control tower facilities. The STARS platform accepts input data from multiple radars and other systems, processes the data, and allows it to be presented on the radar screen used by the air traffic controllers. This provides controllers with critical operational information about aircraft positions, flight data, and weather, allowing controllers to safely direct aircraft in and out of terminal areas, and to fly around bad weather. STARS is capable of tracking up to 1350 airborne aircraft simultaneously within a terminal area. The system interfaces with multiple radars (up to 16 short and long range), 128 controller positions, 20 remote towers, and covers an area of 400 by 400 miles. STARS is a joint Department of Defense (DoD)/Department of Transportation (DOT) program. The STARS platform is being deployed under the FAA's Terminal Automation Modernization and Replacement (TAMR) program. This initial development and deployment of STARS was the first phase of a multi-phased effort by the FAA to retire its older air traffic control systems, and is considered to be TAMR Ph 1. Additional STARS platforms are acquired/deployed under separate investments for TAMR (2) and TAMR3. In the initial investment between 1996 and 2010, STARS was deployed to 47 sites. This investment also

includes on-going terminal enhancements to the baseline software, which are also provided to DoD. This program has dependencies with Terminal Primary Surveillance (TPS), FAA Telecommunications Infrastructure (FTI), TAMR (2), TAMR3, and ADS-B.

**2. How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

The STARS platforms provide the vital automation link between the terminal radars, flight planning, and weather systems, and the air traffic controllers in the terminal facilities. The software enhancements performed as part of this investment are crucial to the FAA's ability to implement NextGen technologies. Specifically, they will be critical to adoption of FAA's Automatic Dependent Surveillance-Broadcast (ADS-B) services. This is a GPS based technology that allows aircraft to transmit their GPS determined position to ATC display systems as quickly as once every second, as opposed to once every 4 seconds for a short range radar or once every 13 seconds for an even slower turning long range radar. The additional processing capability provided in the hardware and software upgrades are necessary in order for STARS to function with the addition of so much more incoming data. During FY2013, STARS "terminal automation enhancements" (software) and "technology refreshment" (hardware) activities will continue enabling the Agency to meet future operational requirements, address hardware and commercial end-of-life issues, sustain operational suitability, incorporate future operational requirements, and keep the STARS system running reliably throughout the NAS. Specifically, STARS will develop two new Baseline Software Releases during 2013 for use wherever STARS is deployed. Should this program not be fully funded, critical system functionality and Operational Availability will be negatively impacted in TRACON facilities throughout the NAS.

**3. Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

In 2011 STARS completed the Site Survey, site preparation, and hardware procurement for Philadelphia (PHL), the key site for the G-4 Processor Suite Upgrade. Moreover, a Transition Approach for the executing the upgrade was defined. The program also issued a solicitation for Main Display Monitor (MDM) replacement.

**4. Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

In 2012 STARS will install the G-4 Processor Suite Upgrade at PHL and procure and install MDM (Main Display Monitor replacements at PHL and two Operational Support Facilities (OSF). Also: test R-25 software for the G-4 processor configuration. In 2013 STARS will procure MDMs for two additional OSFs and three additional TRACON sites and install MDMs at two OSFs and four TRACONs.

**5. Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology**

**specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

1996-10-21

## Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	\$0.0	\$0.0	\$0.0	\$0.0
DME (Excluding Planning) Costs:	\$1,543.3	\$22.0	\$25.0	\$34.5
DME (Including Planning) Govt. FTEs:	\$129.6	\$8.2	\$8.6	\$9.0
Sub-Total DME (Including Govt. FTE):	\$1,672.9	\$30.2	\$33.6	\$43.5
O & M Costs:	\$126.9	\$29.6	\$29.7	\$29.2
O & M Govt. FTEs:	\$139.6	\$24.1	\$25.3	\$26.6
Sub-Total O & M Costs (Including Govt. FTE):	\$266.5	\$53.7	\$55.0	\$55.8
Total Cost (Including Govt. FTE):	\$1,939.4	\$83.9	\$88.6	\$99.3
Total Govt. FTE costs:	\$269.2	\$32.3	\$33.9	\$35.6
# of FTE rep by costs:	2,044	187	187	187
Total change from prior year final President's Budget (\$)		\$0.0	\$0.0	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

**2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:**

Several funding changes were made with no net change. FY13 reduced \$7.5M, FY14 increased \$3.0M, FY15 increased \$2.7M, FY16 increased \$5.4M, FY17 and beyond decreased \$3.6M.

## Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value (\$M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	6920	DTFA0102D03006									
						Solicitation ID	Type of Contract/Task Order (Pricing)	PBSA	Effective date	Extent Completed	Short description of acquisition
							Firm Fixed Price	N	2002-10-31	U	
Awarded	6920	DTFA0196C03008									
Awarded	6920	<a href="#">DTFAWA09C00039</a>									
Awarded	6920	<a href="#">DTFAWA09C00040</a>									
Awarded	6920	<a href="#">DTFAWA09C00041</a>									
Awarded	6920	<a href="#">DTFAWA09C00042</a>									
Awarded	6920	<a href="#">DTFAWA09C00052</a>									
Awarded	6920	<a href="#">DTFAWA09C00053</a>									
Awarded	6920	<a href="#">DTFAWA09C00078</a>									
Awarded	6920	DTFAWA09D00030									
Awarded	6920	DTFAWA09D00031									

**2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:**  
FAA policy requires EVM on contracts of more than \$10 Million. STARS is in compliance with this requirement.

## Exhibit 300B: Performance Measurement Report

### Section A: General Information

**Date of Last Change to Activities:** 2012-08-23

### Section B: Project Execution Data

**Table II.B.1 Projects**

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
1	STARS Software Release 25A	STARS Software Release 25A.			
2	STARS Software Release 25B	STARS Software Release 25B.			
4	STARS Tech Refresh - G4 Processor Upgrades	Tech Refresh of STARS sites with G4 Processor automation.			
5	STARS Tech Refresh - Air Traffic Controller's Main Display Monitor (MDM) Replacements	Tech Refresh of STARS sites with new MDMs to replace EOL Sonys.			

**Activity Summary**

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M )	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
1	STARS Software Release 25A							
2	STARS Software Release 25B							
4	STARS Tech Refresh - G4 Processor Upgrades							



## Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M )	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
5	STARS Tech Refresh - Air Traffic Controller's Main Display Monitor (MDM) Replacements							

## Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days )	Schedule Variance (%)
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NONE

## Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
STARS Adjusted Equipment Availability	Percent	Technology - Information and Data	Over target	99.700000	99.950000	99.970000	99.970000	Monthly
STARS Security Breaches	Number	Technology - Information and Data	Under target	0.000000	0.000000	0.000000	0.000000	Semi-Annual
STARS Data Processing Reserve Capacity	Percent	Technology - Information and Data	Over target	41.500000	50.000000	50.000000	50.000000	Semi-Annual
On-Time Arrivals at CORE Airports	Percent	Customer Results - Timeliness and Responsiveness	Over target	88.000000	88.000000	88.000000	88.000000	Semi-Annual
Flight Delays Directly Attributable to STARS	Number	Mission and Business Results - Support Delivery of Services	Under target	110.000000	10.000000	0.000000	10.000000	Semi-Annual